CLAIMS

1. A method for a high dynamic range mixer comprising

   a first transistor whose gate is connected to an RF input and whose drain is connected to the sources of

   a second and third transistor whose gates are connected to a differential local oscillator inputs and whose drains are each connected to

   one input of a differential operational amplifier and each connected to

   a fourth and fifth transistor each acting as a current source. Each output of the differential operational amplifier is connected to an input of the differential amplifier through

   a first and second feedback load device.

2. The method of claim 1 wherein the RF input is differential and the mixer is a double-balanced mixer.

3. The method of claim 1 wherein the first transistor source is connected to a series degeneration resistor.

4. The method of claim 1 wherein the second and third transistor sources are connected to series degeneration resistors.

5. The method of claim 1 wherein the second and third transistor sources are connected series inductors.

6. The method of claim 1 wherein the first and second feedback load devices are resistors.

7. The method of claim 1 wherein the first and second feedback load devices are a parallel network of resistors and capacitors.

8. The method of claim 1 wherein the transistors are bipolar.

9. The method of claim 1 wherein the transistors are MOS.

10. The method of claim 1 wherein the transistors are of any known transistor type.

11. The method of claim 1 wherein the operational amplifier has a common-mode feedback circuit connected to it.

12. The method of claim 1 wherein the current source transistors are replaced by resistors.